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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/342,742	06/29/1999	SHANKAR NATARAJAN	CISCP111/107	7044

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EXAMINER

LEVITAN, DMITRY

ART UNIT PAPER NUMBER

2662

DATE MAILED: 11/26/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/342,742

Applicant(s)

NATARAJAN ET AL.

Examiner

Dmitry Levitan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6, 10-19 and 40-53 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 10-19 and 40-53 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 9.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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Applicant Amendment, filed on November 8, 2002, has been entered. Claims 1-6, 10-19 and 40-53 remain pending.

Information Disclosure Statement

1. The information disclosure statement filed November 7, 2002 has been considered.

Specification

2. The abstract of the disclosure has been corrected in the amendment. The specification objection is withdrawn.

Claim Rejections - 35 USC § 112

3. Claims 15 and 16 has been amended in the Applicant Amendment. Claims 15 and 16 rejection under 35 U.S.C. 112, second paragraph, has been withdrawn.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, 10-18, 40-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abe (US 6,108,304) in view of Hanson (US 6,633,861).

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Abe teaches all claims 1-6, 12, 14, 40-53 limitations:

of method, system and computer program for providing dynamic feedback control of network elements in a data network (edge nodes EA, EB, EC, ED and network management equipment 200 on Fig. 1 and col. 4 lines 63-68; col.5 lines 1-17), the data network including first plurality of network elements (EA, EB, EC, ED on Fig. 1), each of said elements having a plurality of operating parameters associated therewith (bandwidth, buffer status information on col. 10 lines 23-45), said operating parameters being related to at least one control parameter of said element (bandwidth col.10 lines 55-58) comprising: receiving information relating to characteristics associated with a first subset of the plurality of network elements (calculated available bandwidth col. 7 lines 32-60); and providing at least one analysis entity (measured bandwidth col. 7 lines 32-60).

Network elements (edge nodes on Fig. 1) automatically receive updated control information (calculated bandwidth) from analysis and policy entity (data analyzing module 405 of network management equipment 200 on Fig 4) compare dynamically changing bandwidth of the network elements (Fig. 21) with set up bandwidth in network management storage device (401 on Fig. 4) and adjust their bandwidth in response to the control information (Fig. 23 and col. 9 lines 1-12). Regarding claim 47, Abe teaches a computer program to implement the method (flowchart on Fig. 21 and col.7 lines 32-60).

Regarding claims 10, 11, 15-18, Abe teaches a second subset of the plurality of ATM or Frame Relay (col.5 lines 14-17) network elements (relay nodes N1, N2 and N3 on Fig.1) controlled by the same network management equipment 200, receiving control data in response of data

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congestion of the first network elements (edge nodes on fig. 1) as shown on Fig.15 and 23 (col.8 lines 5-40).

Regarding claim 13, Abe teaches the method with periodically updating receive (monitor RM cells col.10 lines 63-68 and col. 11 lines 1-15) information on available bandwidth.

Abe does not teach providing control information that specifies a limit on the operation, excess information rate value and committed burst size value of a network element.

Hanson teaches providing control information that specifies a limit on the operation, excess information rate value and committed burst size value of a network element (channel utilization factor CUF on Fig. 6 and col. 5 lines 63-67, col. 6 lines 1-8, col. 7 lines 65-67, col. 8 lines 1-67). It would have been obvious to one of ordinary skill in the art at the time the invention was made to add control information that specifies a limit on the operation, excess information rate value and committed burst size value of a network element of Hanson to the system of Abe to improve the system handling of different customer requirements.

5. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Abe in view of Hanson in further view of Desai (US 5,781,703).

Abe and Hanson teach all claim limitations specified in claim 1. Abe and Hanson do not teach using plurality of network controllers. Desai teaches multiple network controllers (data servers 14 on Fig. 1 and col. 3 lines 2-30). It would have been obvious to one of ordinary skills in the art at the time the invention was made to use multiple network controllers, as suggested by Desai, to the method of Abe and Hanson to improve reliability of the method.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bustini	5,313,454	Congestion control for cell networks.
Barkley	6,044,406	Credit-based flow control checking and correction method.
Barkley	5,825,748	Credit-based flow control checking and correction system.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dmitry Levitan whose telephone number is 703-305-4384. The examiner can normally be reached on 8:30 to 4:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 703-305-4744. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4750.

Dmitry Levitan
Patent examiner.
November 18, 2002



HASSAN KIZOU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600